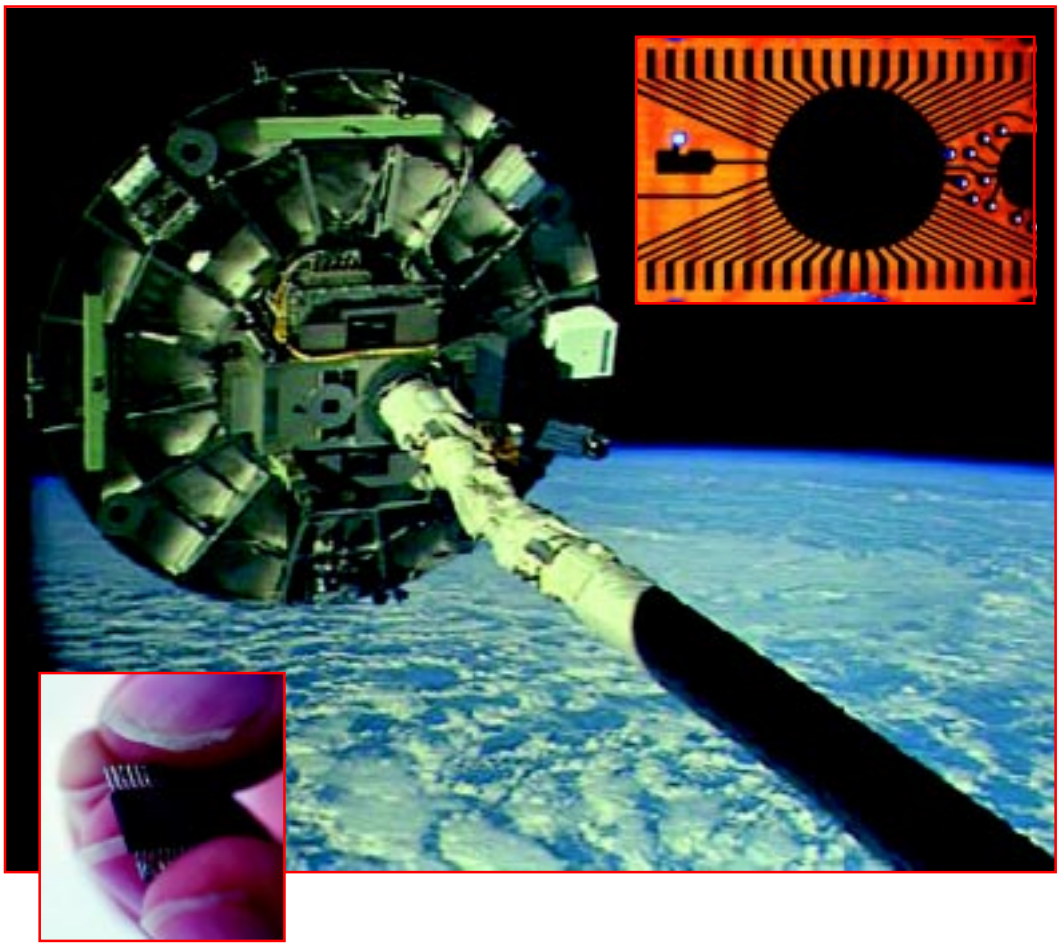
Space Product Development



Pure Electronics

The development of advanced electronics is one of the many areas to benefit from space-based research. A special optical detector developed by the Space Vacuum Epitaxy Center, a Commercial Space Center, may offer the hope of sight to people with a variety of eye problems. The detector is designed to be implanted on the back wall of the eye to replace natural sensors damaged by disease or accident. It converts light into electrical signals in much the same way as rods and cones do in a healthy eye, and the impulses are then picked up by the optical nerve. Preliminary testing has been successful and efforts at commercial development are underway. Applied Optoelectronics Incorporated will help commercialize a mid-infrared semiconductor laser that operates at room temperature. The Space Vacuum Epitaxy Center optimized the design and fabrication of the laser, which can be used for several applications, including environmental monitoring on Earth and in space exploration. Because of its small size and weight, it is also ideal for use on aircraft as a part of defenses against heat-seeking missiles.

For more information, please visit:
http://commercial.nasa.gov
or write to:
Space Product Development
Mail Code SD10
Marshall Space Flight Center
Huntsville, AL 35812

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